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**TRANSMITTAL OF ADDITIONAL RESPONSE TO COMMENTS AND
REPLACEMENT PAGES FOR 1) FINAL Q18 (APRIL TO JUNE 2004); 2) FINAL
Q19 (JULY TO SEPT. 2004); AND 3) FINAL Q3 (JULY TO SEPT 2004)
GROUNDWATER MONITORING REPORTS**

03/31/2006
BRAC PMO WEST

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Ser BPMOW.GB/0297
March 31, 2006

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Dear BCT Members:

Enclosure (1) thru (3) are provided for your review and information. These enclosures are provided to address outstanding concerns and comments on the final Q18 Parcel B, Q19 Parcel B and Q3 Parcels C, D, and E groundwater monitoring reports, Hunters Point Shipyard, San Francisco, California. Included in these enclosures are additional Responses to Comments (RTCs), and replacement groundwater elevation tables. Also included is a revised CD with the entire revised final groundwater monitoring report for Q18, Q19, and Q3. These enclosures were prepared as part of a process intended to improve the overall groundwater monitoring program.

Should you have any concerns with this matter, please contact Mr. Patrick Brooks at (619) 532-0930.

Sincerely,

KEITH FORMAN
BRAC Environmental Coordinator
By direction of the Director

Encl: (1) Additional response to comments on Final Q18 (April to June, 2004) Parcel B Groundwater Monitoring Report, with replacement groundwater elevation table (Table 2) and revised CD, Hunters Point Shipyard, San Francisco, California, of March 31, 2006

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- (2) Additional response to comments on Final Q19 (July to September, 2004) Parcel B Groundwater Monitoring Report, with replacement groundwater elevation table (Table 2) and revised CD, Hunters Point Shipyard, San Francisco, California, of March 31, 2006
- (3) Additional response to comments on Final Q3 (July to September, 2004) Parcels C, D, and E Groundwater Monitoring Report, with replacement groundwater elevation table (Table 1) and revised CD, Hunters Point Shipyard, San Francisco, California, of March 31, 2006

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**Response to EPA Comments Dated December 22, 2005 Regarding the Final Revised April to June 2004
Eighteenth Quarterly Groundwater Sampling Report, Parcel B
Hunters Point Shipyard, San Francisco, California, December 2005**

| Comments From: James Ricks – EPA | Dated: 22 December 2005 | Navy Responses: | Dated: 31 March 2006 |
|-------------------------------------|---|--|----------------------|
| SECTION /PAGE # | COMMENTS | RESPONSES | |
| NEW GENERAL COMMENTS | | | |
| | <p>Comment #1: EPA's review had determined that, in general, responses to comments addressed the Agency's comments and the potentiometric contour map (Figure 3, A-Aquifer Groundwater Contour Map, Eighteenth Quarter) was redone. However, there are still some outstanding contouring errors. For example, the response to New General Comment 1b indicates that contours in the vicinity of IR07MW21A were revised because the calculated groundwater elevation was incorrect. The new calculated elevation is -0.96 feet above mean sea level (ft msl). However, the contours on either side of this well are the 1.0 ft msl and the 1.5 ft msl contours, respectively. Similarly, the elevation in nearby well IR0-7MW24A is 3.82 ft msl, but it is also between the 1.0 and 1.5 ft msl contours. The contours in the vicinity of IR18MW200A and IR46MW41A are also incorrect.</p> | <p>Response: The first question was about reported groundwater elevations at monitoring wells IR07MW21A1 and IR07MW24A. The questions were raised about the actual groundwater levels reported in the tables and the contoured values on the map. These two data points were considered anomalous when initially contoured, having suspicious measured values. It was later discovered by Kleinfelder personnel that the collar elevations for these two wells were switched in the SAP, resulting in erroneous water-level measurements. The collar elevations in the database were corrected and the groundwater map was re-contoured with the updated corrections. This correction did not make it into all of the report tables. Table 2 was updated and distributed.</p> <p>IR18MW200A is approximately 50 feet outside of the property boundary of the map in Parcel B. The 3.0-foot contour line does not go to this well and appears to curve to the wrong side if projected. The closest monitoring well, IR18MW21A, is 100 feet to the east. Monitoring well IR18MW21A pulls the 3.0-foot contour line towards the well to the south where it terminates before the property boundary. The continuation of the 3.0-foot contour line would wrap above the well IR18MW200A if it were to be continued outside of the property boundary.</p> <p>IR46MW41A is located approximately 50 feet from the Bay near Pier C in Parcel B. This point has had a mean sea level of about 2.2</p> | |

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| | to 2.6 feet throughout the sampling periods. The contours at this point on the Q18 map are quite similar to contours presented in other sampling events. |
| Comment #2: EPA also notes that the replacement pages for Table 2 should have included text page 2-3. Since the original and replacement table begin on page 2-4, which is the back of page 2-3, it is necessary to draw a line through the first page of the original table so that the text is intact. In the future, EPA recommends that replacement pages for double-sided documents begin with an even-numbered page (i.e., on the back of a page), and that the first page should include the previous odd-numbered page on the front side of the page. | Response: EPA recommendations for page replacement procedures will be addressed as applicable in future revisions. |

**Response to EPA Comments Dated December 22, 2005 Regarding the Final Revised July to September 2004
Nineteenth Quarterly Groundwater Sampling Report, Parcel B
Hunters Point Shipyard, San Francisco, California, December 2005**

| Comments From: James Ricks – EPA | Dated: 22 December 2005 | Navy Responses: | Dated: 31 March 2006 |
|-------------------------------------|---|--|----------------------|
| SECTION /PAGE # | COMMENTS | RESPONSES | |
| NEW GENERAL COMMENTS | | | |
| | <p>Comment #1: The Agency's review had determined that, in general, the responses to comments addressed EPA's comments and that the potentiometric contour map (Figure 3, A-Aquifer Groundwater Contour Map, Nineteenth Quarter) was redone. However, there are still some residual errors on this figure. For example, Table 2 indicates that the groundwater elevation in IR07MW21A1 was -0.67 feet above mean sea level (ft msl), but the value posted on Figure 3 is 1.7 ft msl. Since 1.7 ft msl, rather than the actual measurement of -0.67 ft msl, was used for contouring, the contours in the vicinity of this well are incorrect. The contours in the vicinity of IR10MW12A do not reflect the measurement of -0.02 ft msl.</p> | <p>Response: The first question was about reported groundwater elevations at monitoring wells IR07MW21A1 and IR07MW24A. The questions were raised about the actual groundwater levels reported in the tables and the contoured values on the map. These two data points were considered anomalous when initially contoured, having suspicious measured values. It was later discovered by Kleinfelder personnel that the collar elevations for these two wells were switched in the SAP resulting in erroneous water-level measurement. The collar elevations in the database were corrected and the groundwater map was re-contoured with the updated corrections. This correction did not make it into all of the report tables. Table 2 was updated and distributed.</p> <p>Another question was raised relative to IR10MW12A, and a concern that the contours do not reflect the measurement of -0.02 ft msl. The contours do in fact reflect this measurement; however, because of the scale of the map, and the limited spacing between contours achievable at this scale, these contours were not expressed.</p> | |
| | <p>Comment #2: As a consequence of the fact that the groundwater contours in the IR07/IR18 area were adjusted, the text in Section 2.2 should have also been revised. The text still indicates that there is a trough in the IR07/IR18 area, but Figure 3 as currently depicted does not show a mound in this area. It is recommended that a replacement text page (double-sided) be submitted to address this issue.</p> | <p>Response: The trough in the IR07/IR18 area is still present after the adjustment to the contours, but has a slightly different orientation than observed during previous quarters. The text is consistent with the adjustment to the contours and no text revision is required. Please note there is no mound in this area.</p> | |

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**Response to EPA Comments Dated December 22, 2005 Regarding the Final Revised Third Quarter (July to September) 2004
Groundwater Sampling Report, Parcels C, D and E
Hunters Point Shipyard, San Francisco, California, December 2005**

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|---|---------------------------|--|----------------------|----------|----------|----------|----------|----------|---|----|----|----|-----|---|---|----|---|----|---------|---|----|---|---|
| Comments From: James Ricks – EPA | Dated: 22 December 2 2005 | Navy Responses: | Dated: 31 March 2006 | | | | | | | | | | | | | | | | | | | | |
| It would appear that several of the Agency’s comments were not addressed and there are still errors on the groundwater contour map (Figure 5). These and other responses to comments are discussed in the attachment. | | | | | | | | | | | | | | | | | | | | | | | |
| SECTION /PAGE # | | COMMENTS | RESPONSES | | | | | | | | | | | | | | | | | | | | |
| NEW GENERAL COMMENTS | | | | | | | | | | | | | | | | | | | | | | | |
| Response to Comment # 1 (Response to General Comment 1): The response indicates that, “The [Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) Basewide Groundwater Monitoring Program, dated August 20, 2004 (the SAP)] allows for discretionary omission of a B-Aquifer potentiometric surface map in the event that there is not sufficient data,” but the SAP does not specify this in Section 3.4 (Groundwater Levels) or in the Data Quality Objectives for Groundwater Level Measurements (Table 3C). In addition, the SAP indicates that there are at least 43 B-Aquifer wells, so there should be enough information to provide B-aquifer contours in some areas. Please provide a specific citation for the discretionary omission of the B-Aquifer Potentiometric Surface Map. In addition, as requested in the original comment, a variance should be provided for this change. | | Response: The wells available for contouring during this round for each of the aquifers are listed in Table 1. Table 1 Hunter’s Point Monitoring Wells <table><tr><td>Aquifer</td><td>Parcel B</td><td>Parcel C</td><td>Parcel D</td><td>Parcel E</td></tr><tr><td>A</td><td>62</td><td>98</td><td>60</td><td>149</td></tr><tr><td>B</td><td>3</td><td>18</td><td>3</td><td>17</td></tr><tr><td>Bedrock</td><td>0</td><td>23</td><td>0</td><td>2</td></tr></table> The attempts to contour the B-aquifer resulted in a map with wells grouped in five locations and large areas with contours questionably interpolated between the sparse monitoring wells. The Navy will evaluate updating the SAP in the future to address this issue. | | Aquifer | Parcel B | Parcel C | Parcel D | Parcel E | A | 62 | 98 | 60 | 149 | B | 3 | 18 | 3 | 17 | Bedrock | 0 | 23 | 0 | 2 |
| Aquifer | Parcel B | Parcel C | Parcel D | Parcel E | | | | | | | | | | | | | | | | | | | |
| A | 62 | 98 | 60 | 149 | | | | | | | | | | | | | | | | | | | |
| B | 3 | 18 | 3 | 17 | | | | | | | | | | | | | | | | | | | |
| Bedrock | 0 | 23 | 0 | 2 | | | | | | | | | | | | | | | | | | | |
| Response to Additional EPA General Comment 1: The response indicates that data was “updated (revised),” but the source of the update is not specified. As a result, it is unclear if the data in Table 1 accurately represents groundwater measurements. Further, changes should not be made to a final | | Response: With respect to “updated (revised)” data in the tables. Clerical and reproduction errors created an incorrect Table 1, whereas the actual contour map was produced with the correct data. As such, the revisions were to correct these clerical errors. | | | | | | | | | | | | | | | | | | | | | |

**Response to EPA Comments Dated December 22, 2005 Regarding the Final Revised Third Quarter (July to September) 2004
Groundwater Sampling Report, Parcels C, D and E
Hunters Point Shipyard, San Francisco, California, December 2005**

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| <p>document, except in response to a comment, unless the change is documented and justified. Since the original comment addressed contouring errors, revision of the groundwater level measurements in Table 1 should not have occurred.</p> | |
| <p>In addition, it is unclear why the top of casing (TOC) elevation for some wells (e.g. PA39MW02A, IR14MW10F, IR11MW26A, IR04MW36A, and IR03MW373B) now have six figures after the decimal point. Since depth to groundwater is reported in 3 to 4 significant figures, TOC elevations should also be reported in 3 to 4 significant figures. The additional digits do not add precision. Please report TOC elevations in only 3 or 4 significant figures. Please explain changes in monitor well TOC elevations; if a new survey was done, please provide the survey report. In addition, please provide the groundwater level measurement data sheets for this and all future groundwater reports.</p> | <p>Response: Field measurements of depth-to-water are measured to the nearest one-hundredth of a foot. The groundwater data used to contour are set to read three or four significant figures, depending on whether there are one or two digits to the left of the decimal. The survey data in the SAP however has top-of-casing elevations in some instances that are represented to as many as six significant figures. All top-of-casing elevations in data tables, databases and report tables (e.g. Table 1) were rounded up to the nearest one-hundredth of a foot.</p> |
| <p>Furthermore, the groundwater elevation measured in multiple wells was still not honored on the revised figure. Please resolve these discrepancies, as follows:</p> <p>a- The following wells are screened in the B-aquifer, therefore, these wells should not be used to contour the A-aquifer: IR25MW39B, IR28MW299B, IR28MW399B, IR28MW400B, IR09MW54B, IR34MW36B and IR37MW26B. Further, since IR37MW26B was used for contouring, there is a mound in the vicinity of this well that may not represent A-aquifer conditions.</p> | <p>Response: Table G-1 of the SAP lists the following wells as "A" aquifer wells: IR25MW39B, IR28MW299B, IR28MW400B, IR09MW54B, IR34MW36B and IR37MW26B. These wells were measured and used for contouring the "A" aquifer as directed by the SAP. These wells will be compared with neighboring wells during future quarters to confirm their construction within the A-aquifer. No changes will be made to the figures for the Q3 Report. However, future reports may incorporate these changes where appropriate.</p> <p>Table G-1 of the SAP lists well IR28MW399B as a "B" aquifer well. This well was measured but was not used for contouring of the "A" aquifer. However, the map symbol incorrectly indicates that this well was "measured and contoured". This error does not change the contours in the vicinity of well IR29MW399B.</p> |

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b- More than one elevation was posted for well clusters IR02MW114 (A1-A3) and IR03MW218 (A1-A3). For each well cluster, only one well (preferably the A1 well, unless the A1 well is known to be screened in a perched unit) should be used to contour the A-aquifer.

Response: All of the clustered well values are listed on the map; however, the groundwater elevation used to contour the well clusters is from the shallowest screened well in the group, which is the A1 well.

Response to Additional EPA General Comment 2: The comment was partially addressed, but several discrepancies still exist between the location of monitoring wells on the figure and their designated Parcel on Table 1, as follows:

Response: Discrepancies between map and table locations, relative to Parcel locations for wells, will be corrected in future reports. In addition, Table 1 was updated and distributed.

| Monitoring Well ID Number | Shown on Map (Fig. 5) In Parcel | Listed in Table 1 Under Parcel |
|------------------------------|---------------------------------------|--------------------------------------|
| IR25MW61A1 | B | C |
| IR25MW61A2 | B | C |
| IR38MW01A | E | D |
| IR38MW02A | E | D |
| IR38MW03A | E | D |
| IR08MW40A | E | D |
| IR08MW44A | E | D |
| IR34MW01A | D | E |
| IR34MW02A | D | E |

Additionally, monitoring wells IR28MW149A and IR15MW09F were not included on Figure 5 nor Table 1, although measurements for these wells appear in previous versions of this report. Please include these wells on Figure 5 and Table 1, and adjust contours appropriately.

Response: Monitoring well IR28MW149 erroneously included in the Q2 report. However, it is not listed in Table G-1 of the SAP as a well selected for groundwater level measurement. Therefore, this well is not required to be measured, and is not included on Figure 5 or Table 1 of the Q3 report.

IR15MW09F is bedrock well and IR15MW09F is not required to be measured according to the data presented in Table G-1 of the SAP.

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SPECIFIC COMMENTS TO RESPONSES TO COMMENTS

Response to EPA Additional Specific Comment 2: The comment was not addressed because the location monitoring well IR28MW272F has been deleted from Figure 5 instead of revising the well identification number as indicated in the response. In the future, please ensure that figures include both IR28MW272F and IR28MW272A.

Response: Monitoring well IR28MW272F is a bedrock well and not contoured. The location for this well will be included in future maps, along with the location for well IR28MW272A.